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# The effects of race and potential for conflict on eye behavior in females

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THE EFFECTS OF RACE AND POTENTIAL  
FOR CONFLICT ON EYE BEHAVIOR  
IN FEMALES

A Thesis  
Presented to the  
Department of Speech  
and the  
Faculty of the Graduate College  
University of Nebraska at Omaha

In Partial Fulfillment  
of the Requirements for the Degree  
Master of Arts

by  
Deborah J. Barclay  
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THESIS ACCEPTANCE

Accepted for the faculty of the Graduate College of  
the University of Nebraska at Omaha, in partial fulfillment  
of the requirements for the degree Master of Arts.

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## Introduction

The number of studies in the area of nonverbal communication has increased rapidly during the last ten years. Researchers have investigated various codes people use to communicate (nonverbally: body movement, vocal characteristics, ~~space~~, touch, eye <sup>CONTACT</sup> behavior and gestures). So strong is the influence of nonverbal communication on human interaction, it has led one researcher to conclude that no more than 35 percent of the social meaning of a message is carried in the verbal portion of a message, while 65 percent of a message's meaning is transmitted nonverbally (Harrison, 1965).

Just as verbal language differs from culture to culture, so do the nonverbal codes. Birdwhistell (1970) proposes that there is no universal facial expression nor body stance which conveys the same meaning in all societies. Under such conditions, one may expect communication problems between groups of differing backgrounds. Furthermore, it could be argued that some of these problems are due to the various ways different cultures use facial expressions, visual behavior, body postures, space and touch to communicate.

A great deal of cross-cultural research has been done concerning mental abilities, dialect variations, and attitude measurements. However little research exists on nonverbal communication between Blacks and Whites. This study represents



an attempt to measure one aspect of nonverbal communication, specifically visual interaction between members of different racial groups.

A second aspect in this study will be perceived conflict. Conflict of one sort or another appears in virtually any social setting where individuals interact to reach some mutually acceptable outcome (Mortensen & Sereno, 1969). The literature on conflict usually deals with factors such as the need for communication, significance of conflict on bargaining or negotiation (Newcomb, 1947). There is little research on the effect of conflict on nonverbal behaviors. This study will investigate how perceived conflict influences visual behavior of communicators.

### Survey of Literature

The term "nonverbal" refers to any means of communication that does not use language sounds essential to the production of words. Such things as gestures, facial expression, and tone of voice communicate meaning and give context for interpreting the spoken word. For purposes of this study, the survey will focus on two areas of the literature on nonverbal communication: visual behavior and cross-cultural differences in nonverbal communication.

### Visual Behavior

Simmel (1921) has described eye contact as a wholly new and unique union between two people and it represents the most perfect reciprocity in the entire field of human

relationships. One initially establishes communication with another through mutual glances.

Kendon(1967) hypothesized four functions of eye contact: (1) cognitive: subjects tend to look away when having difficulty encoding; (2) monitoring: subjects may look at their interactant to indicate the conclusions of thought units and to check their interactant's attentiveness and reactions; (3) regulatory: responses may be demanded or suppressed by looking; and (4) expressive: degree of involvement or arousal may be signalled through looking.

Eye contact has also been related to sex roles, degrees of power, personality, and psychological needs of interactants with a willingness to make or maintain eye contact (Ellsworth & Ludwig, 1972). Argyle and Williams' (1969) results indicate that females feel more observed than males and tend to rely more on visual feedback and hence establish more eye contact. Kendon (1967) suggested that looking at or away from the listener at the beginning and end of an utterance signals the speaker's intentions and expectations. The speaker looks away at the beginning and just before the ending of his speech to check listener responses and to signal the listener that it is his turn to speak. Day (1964) also found that a speaker's pattern of looking away during difficult encoding situations is not random. When the subjects of his study were asked thought-provoking questions (e.g. Who was the 5th president?) and eye movement was

measured, he found that people tended to make about 75 percent of these movements in the same directions.

To further test theories of eye behavior as a regulatory function, Argyle, Lalljee and Cook (1968) manipulated visibility to study its effects on verbal interaction dyads. One member of each pair interviewed the other one of four visibility conditions: only eyes visible (both wore masks); only face visible (both wore dark glasses); only body visible (screen for head); and no vision. The results showed that more speech pauses occurred in the face-only condition than in the no-vision condition; fewest pauses occurred in the body-only and eyes-only conditions.

The information-seeking function of eye contact is commonly called monitoring or feedback. In human interaction individuals seek feedback to adept their behaviors. Kleck (1968) theorized that "a person's behavior while listening to us is used by us as feedback regarding his evaluation of our own behavior". The information-seeking function of eye contact has been measured empirically in relation to the subject's motivation for information and/or the availability of the type of information he is seeking. For example, Exline and Messick (1967) found that dependent rather than dominant subjects engage in more eye contact while speaking with an experimenter who gave little social reinforcement than with one who gave substantial amounts of reinforcement. Other experimenters have approached the same question from a

different angle. Looking away or avoiding eye contact may occur when the information communicated by the other person is undesirable or distracting or when there is an apparent difficulty in encoding. Exline and Winters (1965) concluded from their research that when discussing cognitively-difficult topics, people look less than when discussing cognitively-easier topics. Concurring with Exline and Winters, Nielson (1962) noted that looking away during speaking expressed uncertainty about what was being said.

Eye contact has been investigated as a source of influence on the other person or the course of the interaction. Klienke and Pohlen (1971) found that subjects paired with a steadily-gazing confederate had significantly higher heart heat rates than subjects paired with a confederate who averted his gaze. Ellsworth and Carlsmith (1973) instructed experimenters to stand on a street corner or ride motorcycles to test the influence of the stare on interaction. Subjects were pedestrians or automobile drivers stopped at an intersection. Subject's speed when crossing the intersection was the dependent variable in this study. As predicted, crossing time was significantly shorter in the stare conditions than in the non-stare. The reason stated for these results was that direct eye contact involves a person in an interpersonal encounter and demands a response. Since there was no appropriate response, increasing tension elicits avoidance behavior at the earliest possible moment. In another study

Ellsworth & Carlsmith (1973b) found that consistent eye contact from a victim inhibites aggressive responses (shocks) from angered subjects.

Another influence of eye contact is the attributions made by the receiver to the sender of eye contact. A person may attribute stable characteristics or more transient mood, reactions, or attitudes to the other person on the basis of his visual behavior. LeCompte and Rosenfeld (1971) used two conditions of visual attention (experimenter read to subjects without looking up and experimenter glanced up twice, looking toward the subject for two seconds). Experimenters who glanced up were rated as less formal and nervous than experimenters who did not look up. Similar results were obtained from studies done by Argyle and Kendon (1967). They found that a listener who does not look at a speaking subject is perceived as having more authority and control. Exline and Eldridge (1967) hypothesized that a verbal message accompanied by eye contact with the addressee would be interpreted as more authentic than a message accompanied by an averted gaze. Subjects interacted with a confederate who subsequently gave them his impressions of them. The impressions were favorable, and dealt with social poise and individuality. As the confederate finished one impression and began another, he changed from direct gaze at the subject to gaze aversion, or vice versa. Subjects judged the verbal message to more favorable when it was accompanied by direct gaze. Also,

when eye contact accompanied the second message rather than the first, the confederate was judged as more confident on both messages.

Other research suggests that variation in duration of eye contact indicates communicator's attitudes toward each other. Kendon and Cook (1969) found that partners were evaluated more positively the longer their gazes. Mehrabian (1969) found eye contact was minimal for disliked addressees, approached a maximum for addressees toward whom the attitude was neutral, and slightly diminished for addressees who were liked very much. The findings of Hearn (1957) indicate that eye contact is moderate with a very high status addressee, and minimal with a low status addressee. Groups of people who like each other have more instances of eye contact and for longer durations (Argyle & Dean, 1965). Rubin's (1970) results confirmed the notion that couples in love spend more time looking into each other's eyes than couples who are not. These studies indicate that length of eye contact is positively related to attitudes of communicators toward each other.

Needs of affiliation and approval-seeking orientation may also have an effect on visual behavior. Pellegrini (1970) tested Rosenfeld's theory which states that people in approval-seeking roles tend to increase physical proximity. The specific purpose of the study was to determine if subjects in an approval-seeking orientation would show a higher

frequency of eye contact when physical proximity was held constant. Results show longer durations of eye contact were maintained in approval-seeking relationships than in an approval-avoidance. Mehrabian (1969) concluded where degrees of power are unequally distributed, the low power person has a greater need to affiliate. The low power person has a greater need to monitor the feedback of the high power person.

### Cultural Differences in Nonverbal Communication

Few studies have been conducted to investigate the eye behavior of different cultures or what happens to eye contact when persons from different cultures interact. Smith (1972) focuses on explaining the importance of nonverbal communication in a transracial context:

Perhaps, in communication across racial lines, an understanding of the nonverbal signs is even more important than an understanding of the verbal code (p. 289).

Nonverbal codification, which is often used unconsciously, is indispensable to meaningful communication in transracial contexts. In order to achieve a measure of understanding, persons who communicate must possess the capacity to respond to nonverbal as well as verbal cues (p. 292).

Thus if persons from one culture are not aware of the rules governing nonverbal behavior of persons of another culture this causes the stereotyping of one culture by another. Porter implies this in writing about the problems of cultural differences in proxemic behavior:

During intercultural communication, attempts to interact at culturally habitual personal distances

can cause inadvertent intrusions into another's personal zone. Though the result of ignorance, such intrusions can disrupt interaction. Depending on the social relationships, the intruder may be perceived as pushy, overbearing, disrespectful, sexually aggressive, homosexual, or even a hoer (p. 14).

Observers of different cultures have noted differing body gestures, facial expressions, use of time, and use of personal space that are peculiar to a culture (Eisenberg, 1971). However, proxemic behavioral differences among cultures have been the most empirically-researched area in cross-cultural differences in nonverbal communication. Choosing to work with interacting dyads, Watson and Graves (1966) investigated how dyadic groups from different cultural backgrounds, Arab and American, would seat themselves. Observing their subjects through a one-way mirror, they measured five variables: (a) axis (shoulder alignment), (b) distance, (c) touch, (d) eye contact, and (e) loudness. Their hypotheses were: (a) that Arab students will interact more closely and more directly than American students, and (b) that when both culture groups are broken into subgroupings--Arabs by country and Americans by region--the behavior of each of these subgroups will be more like other subgroups within its culture than like any of the subgroups from the other culture. Their findings indicated that a difference existed on all variables.

Forston and Larson (1968) also studied seated interactions using North American and Latin American subjects. They hypothesized that: (a) Latin Americans will position



their chairs differently than North Americans, (b) Latin Americans will interact at a closer distance, (c) North Americans will prefer distance of less than 5.5 feet, and (d) Latin Americans will touch one another more often. All of these hypotheses were rejected except the third. There were no significant differences in either position or distance between the subject groups, and no subject of either group touched another subject. Ironically, the authors found that Latin Americans tended to sit farther apart. However, the authors reported that in a standing interaction before and after the experiment the interpersonal distance of the Latin Americans seemed to shrink considerably.

Baxter (1970) made observations of proxemic spacing in the Houston Zoo. He measured only intracultural dyads of Anglo, Black, or Mexican-American composition. The main effect for each ethnic group was significant. Mexican-Americans stood closest (21.6 inches), Anglos stood at an intermediate distance (27.5 inches), and Blacks stood most distant (32 inches).

Jones (1971) observed intracultural dyads in a natural setting in New York City. His samples included Black, Puerto Rican, Italian, and Chinese pairings. He was unable to discover a significant difference among any of these groups.

Finally, Leibman (1970) created an experimental situation in which Black and White female subjects had to make proxemic choices. While ostensibly in a waiting room prior

to their participation in an experiment, the subjects had to choose where to sit relative to previously-seated confederates who varied according to race, sex, and position. The seating of the White females was uninfluenced by race, while the Black females chose to sit with Black males as opposed to White males.

The research reviewed here has explored questions about intragroup nonverbal (proxemic) behavior. No study has been conducted concerning inter-group norms. Smith (1972) notes that little work has been done in the whole broader field of interracial communication:

Although several studies of intercultural communication have already been made, few if any recent research articles have contributed to our understanding of interracial communication intra-nationally (p. 288).

#### Summary

Visual Behavior. The research findings indicate that eye behavior is an important variable in interpersonal communication contexts. Studies have shown that interactants do not engage in eye contact merely for the purpose of looking. In general eye behavior is related to the personalities, need, attitudes and sex of the interactants. A communicator's eye behavior is also influenced by the mood of the interaction so that individuals make and maintain eye contact in comforting interactions and avoid eye contact when the interactions become uncomfortable. Although these studies were performed under varying conditions using different measures they seem to provide the context for viewing

the present study.

Cross-Cultural Differences. The literature on cross-cultural differences only cited studies done concerning proxemic behavior. All studies support the theory that cultural norms do exist, but none answered the question of cross-cultural communication on proxemic behavior. This question is an important one since a difference can create problems in communication among individuals from different cultures.

### The Present Study

The studies reviewed are concerned mainly with analyzing the nature of eye behavior. As a generalization it appears that eye contact is of greater duration and there is less frequency of eye shifts between people who hold positive attitudes toward each other than between those who hold negative attitudes.

The general assumption upon which this study has been made acknowledged the potential for tensions between ethnic groups. It is therefore hypothesized that when members of the same ethnic groups interact, a longer duration of eye contact and less frequent eye shifts\* will be observed. It further hypothesized that when members of different ethnic groups interact, eye contact will be shorter in duration and there will be more frequent eye shifts.

\* In this study frequency of eye shifts will be defined as the number of times the subjects look away from and back to the confederate.

Also, since the survey of literature suggests that eye contact duration is affected by the attitudes communicators hold toward each other, this study will test the effects of potential for conflict on eye contact duration and frequency of eye shifts. For these reasons the following hypotheses were made:

#### Hypotheses

1. There will be a longer duration of eye contact between members of same race dyad than between members of different race dyads.
2. There will be shorter duration of eye contact in a high potential for conflict interaction than in a low potential for conflict interaction.
3. There will be a higher frequency of eye shifts between members of different race dyads than between members of the same race dyads.
4. There will be a higher frequency of eye shifts in a high potential for conflict interaction than in a low potential for conflict interaction.

## Method

### Subjects

Students enrolled in basic courses in the Department of Speech, Black Studies Department and in the Goodrich Program served as subjects in this study. Only female undergraduate students participated since prior research suggested sex differences in eye contact behavior (Exline, 1963). Subjects were selected on the basis of pretest scores obtained on an opinion survey designed to determine attitudes toward an experimental issue (abortion). In addition, one-half of the subjects selected were Black students and one-half were White students.

### Instruments

Each subject was given an opinion survey to measure her attitude on abortion. This 10 statement questionnaire was tested and retested on a group of 15 females with a .84 Spearman Rho resulting. Because Ss response on question 10 determined the type of dyad condition they would be placed in, a separate correlation was performed on it with a .91 correlation resulting (Appendix A). All other questions were masking items to disguise the real purpose of the study.

A posttest questionnaire containing 12 questions about the experimental issue, setting, and the interviewer's perceptions about the interviewee and the interviewee's attitudes

on abortion (Appendix B) was given to all Ss after completing the experiment. Questions 1 through 5 were the items used in this study to measure the interviewer's attitudes. For example, if a S interacting in a conflict interaction perceived the interaction as one of high potential for conflict, questions 1, 2, 3, 5 and 9 would receive a score of 4 or 5 indicating disagreement with the statement. Question 4 would be given a score 1 or 2 indicating agreement. However, if the S was interacting in a condition of low potential for conflict, the S would give questions 1, 2, 3, 5 and 9 a score of 1 or 2 indicating agreement. Questions 11 and 12 provided the interviewer the opportunity to state in her own words the purpose of this experiment and her perceptions of the interviewee. Statements 1 through 5 and 9 of the questionnaire were tested and retested on a group of 15 females with a .86 Spearman Rho resulting. Questions 6, 7 and 8 were merely filler items and were not used in the measurement of perceived potential for conflict.

### Setting

The experimental setting, equipment and procedures were similar to those outlined by Argyle and Dean (1965) in an experiment designed to measure eye contact, distance and affiliation. The experiment took place in a room approximately 8 feet square, equipped with a ceiling microphone, and a one-way window with an adjoining observation room. The room was unfurnished except for a table and two chairs.

The subject and confederate were seated 5 feet apart measured from chair cushion to chair cushion. They were seated at an  $90^{\circ}$  angle. This was done so that the gazing of the confederate was less apparent to the Ss. The chairs were located near a corner of the wall opposite the observation window. Prior to the arrival of the subject, the female confederate was seated in the chair farthest from the entrance to the experimental room. The Ss were then required to take the remaining chair as shown in Figure 1.

An observer placed on the opposite side of the one-way mirror measured frequency and duration of eye contact using cumulative stop watches and scoring sheets (Appendix C). Frequency of eye contact was measured by the number of times the Ss looked away from and back to the confederate. A Pearson-Product Moment correlation used to measure the reliability of two observers for duration in the pilot study yielded a correlation of .97. The reliability measurement for frequency of eye contact between the observers resulted in a Spearman Rho correlation of .84. Since reliability was so high, only one observer was used in the actual experiment.

#### Data Gathering Procedures

Subjects who expressed extremely positive (+1) or extremely negative (+5) attitude positions concerning the experimental were randomly assigned to 1 or 4 experimental conditions: Black Ss with Black confederate with low

potential for conflict (LPC) and high potential for conflict (HPC); Black Ss with White confederate low and high potential for conflict; White Ss with White confederate with low and high potential for conflict; White Ss with Black confederate with low and high potential for conflict. This process was repeated until 20 Ss per cell were available to participate in the study.

All subjects received the same set of instructions prior to conducting their interviews (Appendix D). These instructions explained that each subject would conduct an interview with another student, a confederate of the researcher, on the experimental topic. Subjects received a list of items to include in their interviews. Each set of instructions contained a practice sheet for subjects to become familiar with the experimental topic. In addition, subjects wrote down these items prior to conducting their interviews.

After the completion of the practice and basic procedure instruction one-half of the Ss received the following information about the confederate:

The person you are about to interview disagrees with your attitude on abortion. She views any person that holds your attitude as being misinformed, and unaware of the current social problems facing the world. The results of a Personality test she took strongly suggests that she is a closed-minded individual and not very rigid in her opinions.

This information was designed to suggest the setting contains a high potential for conflict(HPC). Mehrabian (1968) identified nonverbal behaviors which signaled liking and dis-



liking. Subsequently the confederate was instructed not to gesture, avoid smiling and not to lean forward in interactions of high potential conflict.

The other half of the Ss who took part in this study received information about the confederate that was designed to suggest the setting was of low potential for conflict (LPC):

The person you are about to interview agrees with your attitude on abortion. She also sees any person holding your attitude as a well-rounded and informed individual. A Personality test she took indicates that she is an open-minded person and rigid in her opinions.

All Ss then proceeded to interview the confederate for approximately three minutes on the experimental topic while an observer recorded the frequency and duration of eye contact for each subject on a scoring sheet using cumulative stop watches. Immediately after completing the interview, Ss were then asked to complete posttest questionnaire concerning their perceptions of the interview interaction.

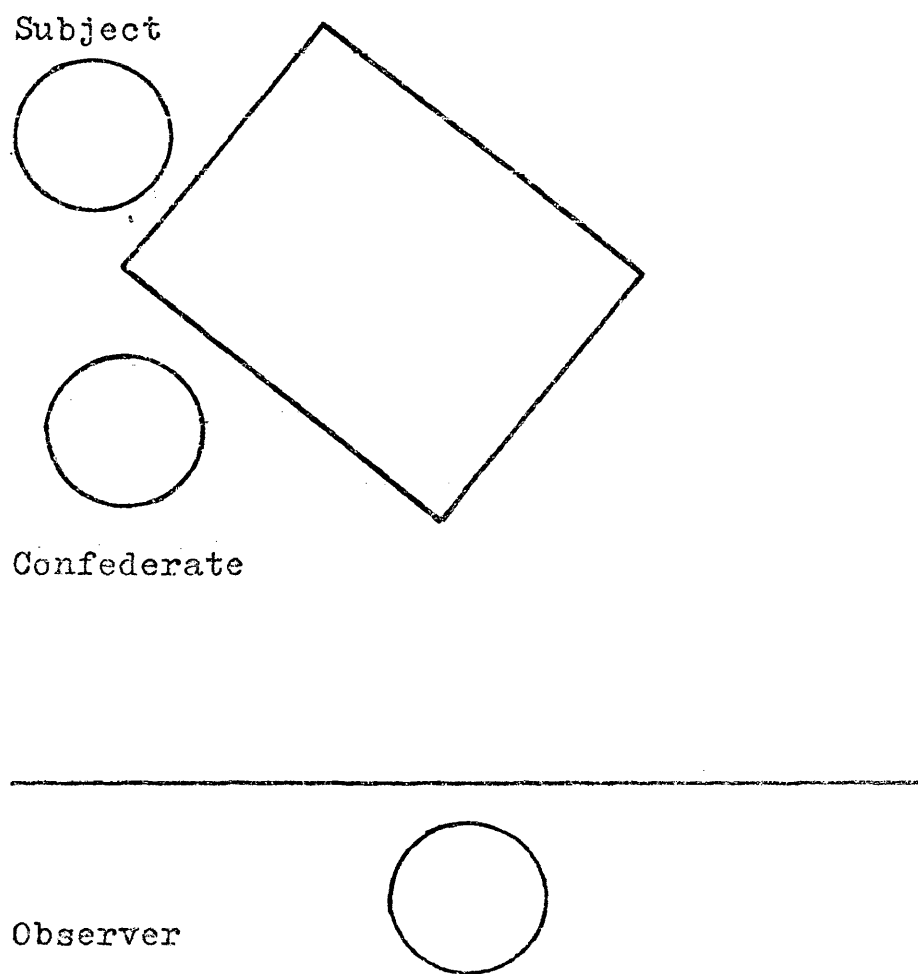


Figure 1

Arrangement of Subjects and Observers

## RESULTS

The .05 criterion was used to test all hypotheses in this investigation. Analysis of variance and chi-square tests were used to test the predictions concerning duration of eye contact and frequency of eye shifts (ES) respectively. A complete list of raw scores appears in Appendix E. In addition, posthoc analyses were conducted to further examine the data.

Duration of Eye Contact (EC) A two-way analysis of variance was used to test the hypotheses concerning duration of eye contact in dyad conditions. An  $F_{\max}$  test indicated that all variances were homogeneous ( $F_{\max}=2.5528$ ;  $df=19$ ;  $p>.05$ ). Hypothesis 1 predicted a longer duration of eye contact between members of the same race dyads than between members of different race dyads. The hypothesis was not supported.

Table I shows the F value for the effect of race on duration of eye contact. Hypothesis 2 predicted a longer duration of eye contact in a low potential for conflict interaction than in a high potential for conflict interaction. This hypothesis was not supported. The F value for the effect of potential for conflict on duration of eye contact is also shown in Table I.

TABLE I  
ANALYSIS OF VARIANCE FOR DURATION OF  
EYE CONTACT FOR SUBJECTS IN  
EXPERIMENTAL CONDITIONS

Source	SS	df	ms	F	p
Race	515.1127	1	515.1127	.9671	ns
Conflict	7.8125	1	7.8125	.0147	ns
Race X Conflict	702.112	1	702.1123	1.3182	ns
Error	40478.4498	76	532.6112		
Total	414703.4868	79			

Frequency of Eye Shifts (ES). Table II shows the total number of observed frequencies for same and different race dyads. Chi-square tests were used to test the hypotheses concerning frequency of eye shifts. Hypothesis 3 predicted a higher frequency of eye shifts between members of different race dyads than between members of same race dyads. Hypothesis 3 was not supported. The chi-square value was not significant at  $p < .05$  ( $\chi^2 = .0415$ ;  $df=1$ ).

TABLE II  
OBSERVED FREQUENCIES OF EYE SHIFTS FOR  
SAME AND DIFFERENT  
RACE DYADS

Same	Different
79	93
80	86
136	121
141	130
Total = 436	Total = 430

Hypothesis 4 predicted a higher frequency of eye shifts in high potential for conflict interaction than in a low potential for conflict interaction. The hypothesis was not supported. The chi-square value was not significant at  $p < .05$  ( $\chi^2 = .0739$ ;  $df=1$ ). Table III shows the total number of observed frequencies for interactions in high potential for conflict and low potential for conflict.

TABLE III  
OBSERVED FREQUENCIES OF EYE SHIFTS FOR  
SUBJECTS IN HIGH VERSUS LOW  
POTENTIAL FOR CONFLICT IN  
EXPERIMENTAL CONDITIONS

High Conflict	Low Conflict
79	80
93	86
136	141
121	130
Total = 429	Total = 437

A twelve item posttest questionnaire was given to all Ss to determine their perceptions of the interviewee after they completed the interview in 1 of the 4 experimental conditions. Table IV shows the mean for each group of Ss.

TABLE IV  
POSTTEST MEAN ATTITUDES FOR BLACK AND WHITE  
SUBJECTS IN HIGH POTENTIAL FOR CONFLICT  
VERSUS LOW POTENTIAL FOR CONFLICT  
CONDITIONS

High Potential Conflict				Low Potential Conflict			
Dyad Condition				Dyad Condition			
B-B	B-W	W-W	W-B	W-W	W-B	B-B	B-W
15.6	17.6	18.2	19.6	11.2	15.25	11.7	12.6

The first letter represents race of Ss.

The test to test the significance between two independent means suggests that a significant difference exists between the means of Ss interacting in low and high-potential-for-conflict conditions ( $t=5.1662$ ;  $df=78$ ;  $p<.001$ ).

Additional Analysis. Although the  $F$  value in the two-way analysis of variance test used to test the duration of eye contact in same and different race dyads proved to be non-significant, the experimenter decided that because of the difference in means of the raw scores and large amounts of error variance there were confounding effects and the data warranted further analysis. A three-way analysis of variance test was then used to determine the effects of race of subjects, race of confederates and potential for conflict on the duration of eye contact by separate cells. The  $F_{\max}$  test indicated that all variances were similar ( $F_{\max}=5.7803$ ;  $df=9$ ;  $p>.05$ ). Table V shows the means for duration of eye contact for Black and White Ss in dyad conditions.

TABLE V  
MEANS FOR DURATION OF EYE CONTACT  
FOR BLACK AND WHITE SUBJECTS  
IN DYAD CONDITIONS

High Potential Conflict				Low Potential Conflict			
B-B	B-W	W-W	W-B	B-B	B-W	W-W	W-B
130.8	120.2	159.2	155.6	122.6	142.2	154.8	156.7

The first letter represents race of Ss.



Table VI shows the F values for the three-way analysis of variance. The table indicated that the main effect race of subject ( $F=60.1833$ ;  $df=1$ ;  $p<.001$ ) was significant while race of confederate and conflict were not. The interaction of race of subject and race of confederate was not significant. However, the interaction of race of confederate and conflict approached significance ( $F=3.3139$ ;  $df=1$ ;  $p>.05<.10$ ). The overall interaction of race of subject, race of confederate and conflict was significant ( $F=5.9467$ ;  $df=72$ ;  $p<.02$ ).

TABLE VI  
THREE WAY ANALYSIS OF VARIANCE FOR DURATION  
OF EYE CONTACT FOR SUBJECTS IN  
EXPERIMENTAL CONDITIONS

Source	SS	df	ms	F
Race of Subject (A)	15262.8125	1	15262.8125	60.1833***
Race of Confederate (B)	103.1125	1	103.8125	.4066
Conflict (C)	137.1125	1	137.1125	.5434
A X B	79.6125	1	79.6125	.3139
A X C	365.5125	1	365.5125	1.4413
B X C	802.6125	1	802.6125	3.3139
A X B X C	1508.1125	1	1508.1125	5.9467**
Error	18259.5875	72	253.6064	

\*\*\*  $p < .001$

\*\*  $p < .02$

Since race of subject seemed to have a very large significant effect on duration of eye contact, the F test for simple effects was computed for the effect of race of subjects. Table VII shows the F values for race of subject in each dyad condition. All F values were significant.

TABLE VII  
ANALYSIS OF VARIANCE TESTS  
FOR SIMPLE EFFECTS  
DYAD CONDITIONS

Dyad Condition			SS	ms	df	F	p
Subject	Confederate	Conflict					
Black	Black	yes					
White	Black	yes	3075.2	3075.2	1/72	12.1259	.01
Black	Black	no					
White	Black	no	5814	5814	22.92	22.92	.01
Black	White	yes					
White	White	yes	7605	7605	1/72	29.9875	.01
Black	White	no					
White	White	no	793.8	793.8	1/72	3.130	.05

Black and White represent race of interactants.

Table VIII shows the total observed frequency of eye shifts for race of interactants. The chi-square value indicates a significant effect of race of interactants of frequency of eye shifts ( $\chi^2=45.8878$ ;  $df=1$ ;  $p<.001$ ).

TABLE VIII

OBSERVED FREQUENCIES OF EYE SHIFTS  
FOR BLACK AND WHITE SUBJECTS

Black Subjects	White Subjects
136	79
121	80
141	93
130	86
Total = 528	Total = 328

## DISCUSSION AND CONCLUSIONS

Both the analysis of variance and chi-square tests showed that no significant difference existed in duration of eye contact and frequency of eye shifts in same and different race dyads respectively. These tests also showed no significant difference existed in duration of eye contact or frequency of eye shifts in interactions of high and low potential for conflict. A number of possible reasons might have accounted for these results.

Time of measurement. The total time used for the measurement of eye behavior was three minutes. This amount of time may not have been sufficient for the measurement of the two variables. Also, only the total length of time the Ss looked at the confederate was measured. It might have been interesting to compare the ratio of time spent not looking at the confederate and the time spent looking to determine if a significant difference existed between same and different dyads.

Definition of racial conditions: Same vs. Different. In this study same race dyads were defined as White to White and Black to Black and different race dyads were defined as White to Black and Black to White. Specifically the two races were compared together. In a recent study LaFrance & Mayo (1973) found that when comparing total time for other directed gaze there was no significant difference between the two races but a reversal of pattern of gaze-

direction existed between the two races when they were compared separately. In the later post hoc analysis when the data were analyzed by separate cells, it became evident that a significant difference in duration of eye contact and frequency of eye shifts existed between the two races.

Communication roles of subjects. Kendon (1967) theorized that a distinct pattern of gaze-direction existed for Whites when taking part in a conversation. His theory on gaze-direction says that people look less when they are speakers and more when they are listeners. LaFrance & Mayo's (1973) suggest that the reverse of Kendon's pattern is apparent in Blacks: Blacks looked more while they spoke and less while they listened. In this all Ss were interviewers making them both speakers and listeners. A significant difference in eye behavior may have existed if it were determined by whether Ss were speakers or listeners.

Perception of conflict. The results also showed no significant differences existed for duration of eye contact or frequency of eye shifts between high potential for conflict and low potential interaction. Although, a "t" test for difference between means performed on the posttest suggested that a difference did exist between the perceptions of Ss in high potential for conflict dyads and Ss in low potential for conflict dyad conditions; this discrepancy might be attributed to the make-up of the test. Items contained in the test were not analyzed to determine if the

test was a valid measurement of perceived or actual conflict.

#### Discussion of Post Hoc Analyses.

The F value for the three-way analysis of variance suggests that race of subjects had a significant effect on the duration of eye contact. Blacks had a shorter duration of eye contact. Conflict and race on confederate seemed to be less important. The chi-square test comparing differences in frequency of eye shifts was significant. Blacks had a higher frequency of eye shifts than did Whites. It may be possible then that members of the two races may operate under different norms of eye behavior. The post hoc analyses of this study seem to establish differences eye behavior cross-culturally.

#### Implications for further research.

Nonverbal communication has been shown to be a most important mode of communication. Communication researchers agree that just as verbal language is culturally defined, so is nonverbal behavior. There appears to be a need for examining nonverbal aspects of communication. It would also be beneficial to formulate questions not considered in this study. How would the effect of sex of interactant in same and different race dyads affect eye contact? Would people interacting with an authority figure have the same duration of eye contact in dyads of same and different race? Do prejudicial attitudes affect eye contact duration? Would there

be variation of eye contact duration according to socio-economic status, education and race?

Practical Implications.

Knowledge gained from this study could be used to help teach members of different cultures how to communicate better with each other by alerting them to the possible barriers of effective cross-cultural communication. Since nonverbal behavior can be an attribute of personality and character, lack of perception of the significance of non-verbal factors could result in an unfavorable evaluation among members of different cultures.

Communication researchers agree that most of a message's social meaning is carried through the nonverbal mode and that knowledge of another culture's language does not necessarily insure successful communication. Hopefully this study could help increase the need for awareness of nonverbal communication between people of different races and cultures there by promoting a better understanding for all.

## APPENDIX A



Soc. Sec. No. \_\_\_\_\_  
Teacher \_\_\_\_\_

Class \_\_\_\_\_  
Time Held \_\_\_\_\_

### INSTRUCTIONS

This questionnaire is composed of 10 items regarding your attitude on abortion. After each statement are numbers that indicate the degree to which you agree or disagree with the statement. Please try to decide just how much you agree or disagree with the statement and circle the corresponding number. For example, suppose you were asked to evaluate the statement: President Nixon will be impeached before his elected term ends. If you agree with that statement you would circle number 1 to indicate that you agree very much and number 2 if you only agree somewhat. If you disagree with that statement, you would circle number 5. If you had not yet made up your mind concerning the statement you would circle number 3. Work quickly and don't spend much time on any one statement. Your first impression on this questionnaire is most important.

1. I agree very much
2. I agree somewhat
3. I neither agree or disagree
4. I disagree somewhat
5. I disagree very much

1. Thousands of unwanted children are born everyday.  
1 2 3 4 5
2. Women should have the right to decide what to do with their bodies.  
1 2 3 4 5
3. Legalized abortion will curtail death rate of medically inadequate procedures.  
1 2 3 4 5
4. There is a population explosion taking place in the United States and the World.  
1 2 3 4 5
5. The fetus is not a child.  
1 2 3 4 5

6. Abortion should only be allowed in extreme circumstances.  
1 2 3 4 5
7. A couple should not marry simply because the girl becomes pregnant.  
1 2 3 4 5
8. Babies born out of wedlock should be given up for adoption.  
1 2 3 4 5
9. A child should not be born into a family that cannot afford him.  
1 2 3 4 5
10. Abortions should be legalized.  
1 2 3 4 5

## APPENDIX B

Soc. Sec. No. \_\_\_\_\_  
Teacher \_\_\_\_\_

Class \_\_\_\_\_  
Time Held \_\_\_\_\_

### INSTRUCTIONS

This questionnaire is composed of 12 items regarding your perceptions of the interviewing session and the interviewee's attitude concerning abortion. After each statement are numbers that indicate the degree to which you agree or disagree with the statement. Please try to decide just how much you agree or disagree with the statement and circle the corresponding number. For example, suppose you were asked to evaluate the statement: President Nixon will be impeached before his elected term ends. If you agree with that statement you would circle number 1 to indicate that you agree very much and number 2 if you only agree somewhat. If you disagree with that statement, you would circle number 4 or 5. If you had not yet made up your mind concerning the statement you would circle number 3. Work quickly and don't spend much time on any one statement. Your first impression on this questionnaire is most important.

1. I agree very much
2. I agree somewhat
3. I neither agree or disagree
4. I disagree somewhat
5. I disagree very much

1. The interviewee's attitudes on abortion are similar to my own.  
1 2 3 4 5
2. The interviewee is a person I would like to know better.  
1 2 3 4 5
3. The interviewee supported her attitudes on abortion adequately.  
1 2 3 4 5
4. The interviewee was nervous and unconfident during the interviewing session.  
1 2 3 4 5
5. I felt the interviewee was friendly towards me.  
1 2 3 4 5

6. The interviewee's attitude on abortion was immoral.  
1 2 3 4 5
7. The interviewee believed that abortion should be legalized.  
1 2 3 4 5
8. The interviewee expressed the opinion that women should have the right to decide what to do with their bodies.  
1 2 3 4 5
9. The interviewee seemed to be a trustworthy individual.  
1 2 3 4 5
10. The interviewee believed that a population explosion exists in the United States.  
1 2 3 4 5
11. Very briefly please describe the personality of the person you interviewed.
12. Very briefly please describe the purpose of this research project.

APPENDIX C

## SCORING SHEET

Subject\_\_\_\_\_

Frequency of Eye Shifts

Total Duration\_\_\_\_\_

# APPENDIX D



## INTERVIEW PROJECT INFORMATION

The Department of Speech Communication is currently conducting a series of impromptu interviews with students enrolled in speech communication classes. The interviews are being conducted by students on a series of controversial topics. We are trying to determine the range of student opinion on these issues for possible discussion courses. Other interviews with students like yourself indicate that abortion is one topic on which students hold strong views.

In order for us to conduct this project, we are asking that you role-play an interview session in which your role will be that of the interviewer. The other participant, whom you will meet later will be the interviewee. It is your task to interview one person and obtain their attitudes on abortion. The entire interviewing session will require about 4 minutes of your time to complete. The project director will notify you when time is up. You should attempt to determine the attitude of the interviewee on the following areas concerning abortion: 1. the morality of obtaining an abortion; 2. the legality of the Supreme Court's decision and; 3. the right of the father to participate in the abortion decision.

To insure that we get the honest opinions of the interviewee, we have told this person that your ability as an interviewer is the real subject to be studied in this project. Actually,

we want to record the interviewee's attitudes in an inconspicuous manner. For this reason we have placed both of you in a room containing a one-way mirror. The project directors will be recording the answers you obtain from the interviewee. Please ask the interviewee to speak clearly. Also, if at any time you cannot hear the answers ask the interviewee to repeat them for you. This is very important in order to complete the project. Your help in obtaining the attitudes of students is greatly appreciated. Students like yourself who give some of their time and participate in projects like this one help the Speech Department offer all students a better education.

Before beginning the interview, write down at least one question for each area you think should be asked to cover the interviewee's attitude on each area concerning abortion. These areas are: 1. the morality of obtaining an abortion; 2. the legality of the Supreme Court's decision and; 3. the right of the father to participate in the abortion decision. We have found that "open-ended questions" (questions beginning with such phrases as--what do you think or how do you feel about a specific subject) enables a person to say more about what he or she thinks or feels. To help you role-play the part of the interviewer in this project, you may have 5 minutes to organize your thoughts and ideas. Scratch paper has been provided to enable you to jot down any notes you wish to make.

If you have understood this project information, please turn the page, if not ask the project director any questions you might have.

DO YOU HAVE ANY QUESTIONS?

### SUGGESTIONS FOR INTERVIEWING

Since this interview is impromptu, you should know the topic areas and general questions from memory. Here is a simple aid to help you remember the topic areas and your questions. Please answer the following questions before conducting the interview.

1. The areas on which you will conduct your interview are morality, legality, and right. Now rewrite the complete statements concerning these issues as they were presented to you on page 1 of the project information sheet.

a.

b.

c.

Now jot down the general question on each area you think will adequately cover the interviewee's attitudes on these areas.

Now you are ready to conduct your interview. Be sure to act like an interviewer. This can be done partially by introducing yourself and stating the purpose of the interview. Do this in the following manner.

Introduction and purpose

"Hello, I am \_\_\_\_\_ and I'm here to discuss some of your feelings about abortion. The first question I would like to ask is \_\_\_\_\_."

APPENDIX E

RAW SCORES FOR DURATION  
OF EYE CONTACT FOR  
BLACK SUBJECTS

High Potential for Conflict		Low Potential for Conflict	
B-B	B-W	B-B	B-W
116	120	115	120
106	85	151	135
105	140	85	137
130	175	100	120
178	101	167	156
98	98	122	135
156	98	142	158
139	99	111	144
134	156	117	144
146	130	116	173

RAW SCORES FOR DURATION  
OF EYE CONTACT FOR  
WHITE SUBJECTS

High Potential for Conflict		Low Potential for Conflict	
W-W	W-B	W-W	W-B
147	140	125	175
163	160	164	165
140	137	144	143
156	130	163	140
160	172	152	166
163	172	167	171
173	152	171	148
139	169	137	149
170	174	154	160
172	150	171	150



RAW SCORES FOR FREQUENCY  
OF EYE SHIFTS FOR  
WHITE SUBJECTS

High Potential for Conflict		Low Potential for Conflict	
W-W	W-B	W-W	W-B
11	16	5	2
8	15	5	7
6	10	7	6
11	11	8	9
2	5	8	10
10	1	6	9
7	9	7	12
14	9	17	11
6	8	10	8
4	99	7	12

RAW SCORES FOR FREQUENCY  
OF EYE SHIFTS FOR  
BLACK SUBJECTS

High Potential for Conflict		Low Potential for Conflict	
B-B	B-W	B-B	B-W
20	8	15	16
15	10	13	15
27	8	7	19
17	7	25	14
1	15	4	6
17	15	19	17
5	23	9	17
11	7	18	12
11	9	5	10
12	17	26	4

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